

Carbon Monoxide Maintenance Plan Colorado Springs

Technical Support Document

Emission Inventory



December 17, 2009

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Air Pollution Control Division
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1. Emission Inventory Methodology

The Air Pollution Control Division (APCD) developed the 2007 emission inventory in the "Carbon Monoxide Maintenance Plan for Colorado Springs" using U.S. Environmental Protection Agency (EPA) approved emissions modeling methods, including EPA's MOBILE6 model and the latest transportation data from the Colorado Department of Transportation (CDOT) and demographic data from the State Demographers Office.

Highway mobile source emissions are from the EPA model MOBILE6, an emission factor model for predicting gram per mile emissions of Hydrocarbons (HC), Carbon Monoxide (CO), Nitrogen Oxides (NO_x), Carbon Dioxide (CO₂), Particulate Matter (PM), and toxics from cars, trucks, and motorcycles under various conditions.

Non-road source emissions are from the EPA Non-Road Model.

Area source emissions (including heating, construction, railroads, etc.) are from the 2002 EPA National Emissions Inventory (NEI), grown to 2007 by population growth from data from the State. For more documentation for these categories, refer to the NEI documentation (EPA, 2008).

Under Air Quality Control Commission Regulation No. 3, the APCD requires any source that emits two tons per year or greater to submit an Air Pollutant Emission Notice (APEN) (APCD, 2008). This means that sources that emit less than two tons per year are not necessarily accounted for in an emissions inventory. The point source emissions for Colorado Springs were obtained from this tracking system. The emission estimates are made using a variety of methodologies. Data from source-specific emission tests, or continuous emission monitors are preferable, but not always available. The EPA has developed a variety of emission factors to estimate emissions as well. Emission factors are frequently the best or only method available for estimating emissions.

2. 2007 Emission Inventory Summary

This section presents the 2007 emission inventories for the maintenance plan.

Table 1. 2007 CARBON MONOXIDE Emission Inventory (tons per year).

Inventory Summary		CO (Tons/Year)
	Commercial Cooking	68.65
	Fuel Combustion	317.07
	Non-Road	35,556.16
	Structure Fires	34.13
	Woodburning	27,509.28
	Aircraft	1,064.31
	Highway Vehicles	89,068.77
	Biogenic	1,059.71
	Railroads	75.52
	Non O&G Point Sources	826.78
	Grand TOTAL	155,580.4
Non O&G Point Sources		
site id	facility n	
0003	COLORADO SPRINGS UTILITIES-BIRDSALL PLT	15.9
0004	COLORADO SPRINGS UTILITIES-DRAKE PLT	253.0
0006	U.S. AIR FORCE ACADEMY	24.8
0007	COLORADO SPRINGS UTILITIES LAS VEGAS WWT	4.0
0010	TRANSIT MIX CONCRETE	1.8
0014	FORT CARSON USARMY (DECAM)	78.7
0016	PETERSON AFB 21CES CEV	18.3
0017	LAFARGE WEST, INC. - FILLMORE	93.0
0022	COLORADO SPRINGS MEMORIAL HOSPITAL	12.0
0023	BROADMOOR HOTEL INC	2.8
0036	W FORGE HOLDINGS, INC	19.1
0037	AGILENT TECHNOLOGIES	7.8
0041	ATMEL CORP	20.8
0042	TRANSIT MIX CONCRETE CO	0.0
0045	IR SECURITY AND SAFETY	0.2
0050	OGLEBAY NORTON INDUSTRIAL SANDS	4.4
0054	PIKES PEAK COMMUNITY COLLEGE	2.6
0055	PENROSE COMMUNITY HOSPITAL	2.1
0056	PENROSE HOSP	8.8
0063	CHEYENNE MTN ZOO	0.1
0067	ST FRANCIS PENROSE HOSP SYS	1.3
0069	COLORADO COLLEGE	4.5
0075	EVERGREEN PARK MAUSOLEUM ASSOCIATION	0.0
0080	INTEL CORP (WAS ROCKWELL & UNITED TECH)	25.5
0096	LAFARGE WEST - VOLLMER CONCRETE PLANT	0.0
0121	SCHRIEVER AFB USAF	4.5
0178	VILLA SAN JOSE APT BLDG	0.0
0192	PETE LIEN & SONS DBA TRANS-COLO CONCRETE	0.3

0223	HEWLETT-PACKARD CORPORATION	0.6
0301	MOBILE ENERGY PRODUCTS	27.5
0307	TEGRANT DIVERSIFIED BRANDS, INC.	3.8
0310	BURTS AUTO SUPPLY	0.0
0316	RAMTRON INTL CORP	0.1
0328	SCHMIDT CONSTRUCTION CO.-DELTA DRIVE FAC	28.0
0331	FOUNTAIN LANDFILL	31.0
0411	AEROFLEX UTMIC MICROELECTRONICS	0.2
0522	SINTON DAIRY FOODS CO	1.9
0535	SNO WHITE LINEN & UNIFORM RENTAL INC	0.5
0548	NUSTAR LOGISTICS- COLO SPGS TERMINAL	6.5
0783	CHEYENNE MOUNTAIN AIR FORCE STATION	3.3
0812	COLORADO SPRINGS MORTUARY & CREMATION S	0.1
0831	VITESSE SEMICONDUCTOR CORP	3.0
0850	CAPPADONA'S FAMILY SVCES	0.2
0856	MCI TELECOMMUNICATIONS CORP	0.1
0882	KLK INC. - IOWA AVE	1.1
0888	ROCKY MOUNTAIN PREMIX	2.1
1595	U.S. CORP OF ENGINEERS - TSA/ONRA	0.2
1608	TRANSIT MIX CONCRETE CO - EAST PLANT	1.6
1996	CAPPADONA FUNERAL HOME	0.2
1997	EL PASO CNTY - CENTRAL HEATING & COOLING	11.4
2000	ROCKY MOUNTAIN MATERIALS & ASPHALT INC	80.0
2001	ROCKY MOUNTAIN MATERIALS & ASPHALT INC	17.1
2004	DPIX, LLC	0.3
	TOTAL	826.8

3. References

APCD, 2008. Air Quality Control Commission Regulation Number 3. Stationary Source Permitting and Air Pollutant Emission Notice Requirements. 5 CCR 1001-5.
< <http://www.cdphe.state.co.us/regulations/airregs/100103stationarysourcepermitting.pdf> >

U.S. EPA, 2008. "2002 National Emissions Inventory Data & Documentation."
< <http://www.epa.gov/ttn/chief/net/2002inventory.html#documentation> >